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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,393	11/28/2003	Michael Flanigan	64245/1	7179
27871 7590 01/26/2007 BLAKE, CASSELS & GRAYDON LLP BOX 25, COMMERCE COURT WEST 199 BAY STREET, SUITE 2800 TORONTO, ON M5L 1A9 CANADA			EXAMINER LEE, JINHEE J	
			ART UNIT 2174	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/26/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/722,393

Applicant(s)

FLANIGAN, MICHAEL

Examiner

Jinhee J. Lee

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A (1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Objections***

2. Claims 2, 10 and 17 are objected to because of the following informalities:

Claim 2 line 11, the word "utilising" has spelling error. Examiner suggests "utilizing" instead to correct the error.

Claim 10 line 4, the word "reconstructed" has spelling error. Examiner suggests "reconstructed" instead to correct the error.

Claim 17 line 3, the word "colour" has spelling error. Examiner suggests "color" instead to correct the error.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re claims 1-21, claim 1 and claim 9 claims a data structure, however, it appears the limitations of said claim are merely claiming statements defining various items, therefore said limitations do not appear to be defining any functional interrelations which permits the computer program's functionality (or data structure's functionality) to be realized.

In view of the above, claims 1-21 are therefore directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3 and 9-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Knapp (2004/0036782).

Re claim 1, Knapp discloses a system being connectable to a feed of digital data of an image series of frames captured at a capture frame rate for producing a plurality of digital data streams collectively containing said digital data of said image series at a lower rate, said system comprising: a frame processing module having an

input port connected to said feed (video for example); a processing device for file format conversion of frames of said feed (see figure 2 for example); a plurality of output ports for transmitting from said system a set of output streams (see figure 6 for example); and a processing module having a first module for identifying a frame in said feed and for identifying an index associated with said frame (see figure 2 for example); a second module to split said image series into a plurality of component elements, to associate each element of said component elements with a subindex related to said index and to distribute said plurality of component elements as data amongst said plurality of output ports in a distribution pattern (see figure 2, abstract and paragraph [0017] for example).

Re claim 2, Knapp discloses a system further comprising a frame recorder for receiving said data in said plurality of output ports and constructing a recombined image series of said image series from said data (see abstract and figure 6 for example), said frame recorder having a plurality of input ports associated with said plurality of output ports (inherent, see figure 5 and 6); a recording element associated with each input port of said plurality of input ports (see figure 6); an image reconstruction module to read data arriving from said plurality of input ports in a manner governed by said distribution pattern, to extract component elements and subindex information contained therein and to generate said recombined image series utilising said component elements and subindex information by controlling said recording element of said each input port to selectively transfer said data arriving from said plurality of input ports to produce said recombined image series; and an output port for transmitting said recombined image series from said frame recorder (see figure 6 for example).

Re claim 3, Knapp discloses a system wherein said frame processing module further comprises a storage device for said image series (inherent), and said processing module further comprises a third module for directing said frames to said storage device while processing said image series and for providing said component element from said storage device to said second module when said second module is distributing said component element to said one port (see figure 5 for example).

Re claim 9, Knapp discloses a method of processing an image series of frames captured at a capture frame rate comprising steps of: a) identifying a frame in said image frame and an index associated with said frame (see paragraph 0017 for example); b) extracting a component element from said frame (see paragraph 0022 for example); c) generating a subindex related to said index for said component element (see figure 2 for example); d) distributing said component element and said subindex to a frame recorder in a data stream to one output port of a plurality of output ports according to a distribution pattern, each of said plurality of output ports transmitting at a data rate lower than said capture frame rate (see figure 6 and abstract for example); e) at said frame recorder, receiving all data streams from said plurality of output ports and constructing a reconstructed image series representing said image series utilizing said all data streams and storing said reconstructed image in a database (see figure 1 and 6 for example).

Re claim 10, Knapp discloses a method, said method further comprising f) generating an edit copy of said image series from said reconstructed image produced by accessing said reconstructed image and dropping one component element from said

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image series from said edit copy at a periodic interval, said edit copy having an edit frame rate which is lower than said capture frame rate (see abstract and figures 1 and 2 for example).

Re claim 11, Knapp discloses a method, wherein in said step f) said periodic interval comprises dropping every second component element from said image series (see paragraph 0017 for example).

Re claim 12, Knapp discloses a method, said method further comprising f) generating an archive copy of said image series by accessing said reconstructed image and providing each frame of said reconstructed image to said archive copy, said archive copy having an archive copy frame rate which is lower than said capture frame rate (see paragraph 0017 for example).

Re claim 13, Knapp discloses a method, said method further comprising g) editing said archive copy to create a presentation master copy of said image series, said presentation master copy having a presentation frame rate which is equivalent to said archive copy frame rate (see paragraph 0019 for example); h) creating a plurality of duplication copies of said presentation master copy, each of said plurality of duplication copies having a duplication frame rate which is equivalent to said presentation frame rate (see figure 6 for example); and i) displaying one of said plurality of presentation master copies at a theatre at said capture frame rate (see figure 1 for example).

Re claim 14, Knapp discloses a method, wherein in said step c) said subindex is a temporal equivalent identifier for said component element (see paragraph 0018 and 0019, 0023 for example).

Re claim 15, Knapp discloses a method, wherein said archive copy is provided with an edit decision list representing a translated edit points relating to said image series (inherent function, see paragraph 0018 and 0019 for example).

Re claim 16, Knapp discloses a method, wherein said presentation master copy is provided with an edit decision list representing edit points relating to said image series (see paragraph 0019 and 0023 for example).

Re claim 17, Knapp discloses a method, wherein in said step g) said editing comprises editing said archive copy to introduce editing changes relating to one of editorial, compositing and colour correction edits (see paragraph 0023 and 0019 for example).

Re claim 18, Knapp discloses a method, wherein in said step g) said plurality of duplication copies comprise digitized images of frames (see figure 2 and 6 for example).

Re claim 19, Knapp discloses a method wherein said component element is selected from said frame entirely and a field of said frame (see paragraph 0018 and 0019 for example).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



8. Claims 4-8, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knapp in view of Applicant admitted prior art in specification section "BACK GROUND IN INVENTION" (AAPA).

Re claim 4, Knapp substantially discloses a system as set forth in claim 3 above with said plurality of digital data streams are two data streams and said plurality of output ports comprise a first port and a second port (see figure 2 and paragraph 0017 for example). Knapp does not explicitly disclose wherein said capture rate is forty-eight (48) frames per second, said lower rate is twenty-four (24) frames per second, said plurality of digital data streams are two data streams and said plurality of output ports comprise a first port and a second port. However, AAPA teaches of wherein said capture rate is forty-eight (48) frames per second, or twenty-four (24) frames per second. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use known capture rates as taught in the AAPA on the system of Knapp in order to use with higher resolution videos.

Re claim 5, note that Knapp discloses a system wherein said frame recorder further comprises a module for generating an edit copy of said image series, said edit copy having a edit frame rate which is lower than said capture rate (see paragraph 0017 for example).

Re claim 6, note that Knapp discloses a system wherein said processing module device further comprises: a first buffer associated with said input port for storing said frames; and a second buffer associated with said plurality of output ports; and said

frames are moved from said first buffer to said second buffer as they are fully received by said frame processing module (see figures 1, 2 and paragraph 0011 for example).

Re claim 7, note that Knapp discloses a system wherein said distribution pattern comprises providing one frame of said image series to said first port and providing the next frame of said image series to said second port (see paragraph 0017 and figures 1 and 2 for example).

Re claim 8, note that Knapp discloses a system wherein said distribution pattern comprises providing one line a frame of said image series to said first port and providing the next line of said frame to said second port (see paragraph 0017 for example).

Re claim 20, Knapp substantially discloses a method as set forth in claim 19 above with edit frame rate and archive copy frame rate as half of the capture frame rate (see figure 2 and paragraph 0017 for example). Knapp does not explicitly disclose wherein in said capture frame rate is 48 fps, said edit frame rate is 24 fps, said archive copy frame rate is 24 fps and said duplication frame rate is 24 fps. However, AAPA teaches of wherein in said capture frame rate is 48 fps, said edit frame rate is 24 fps, said archive copy frame rate is 24 fps and said duplication frame rate is 24 fps. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use known capture rates as taught in the AAPA on the system of Knapp in order to use with higher resolution videos.

Re claim 21, note that Knapp teaches of wherein said edit decision list for said edit copy reflects an edit point for every other frame of said image series for said presentation copy (see paragraphs 0018, 0019, and 0023 for example).

**Conclusion**

Kaye et al. is cited to show various components of a digital imaging system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M- F at 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 571-272-2100 ext. 74. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jinhee J Lee  
Primary Examiner  
Art Unit 2174

